COMPLETION REPORT
SOIL INSPECTION/SAMPLING PLAN
ATTACHMENT IV – HYDRAULIC ELEVATORS

HITACHI GLOBAL STORAGE TECHNOLOGIES, INC.
REDEVELOPMENT PROPERTY
5600 COTTLE ROAD, SAN JOSE, CALIFORNIA

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ACRONYMS

1,1-DCE	1,1-Dichloroethene
bgs	below ground surface
CalEPA	California Environmental Protection Agency
CCR	Current Conditions Report
CMS	Corrective Measures Study
DJPA	David J. Powers & Associates
DTSC	Department of Toxic Substance Control
EIR	Environmental Impact Report
ESA	Environmental Site Assessment
ESL	Environmental Screening Level
GPA	General Plan Amendment
GST	Global Storage Technologies
HHRA	Human Health Risk Assessment
HLA	Harding Lawson Associates
IBM	International Business Machines
LQG	Large Quantity Generator
O&G	Oil and Grease
PAH	Polyaromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PD	Planned Development
PG&E	Pacific Gas and Electric
R&D	Research and Development
RBTC	Risk-Based Target Concentration
RCRA	Resource Conservation and Recovery Act
RG	Remedial Goal
RO/DI	Reverse Osmosis/Deionized Water
RWQCB-SF	Regional Water Quality Control Board, San Francisco Bay Region
SI/SP	Soil Inspection/Sampling Plan
STL	Severn Trent Laboratories
TCA	Trichloroethane
TCE	Trichloroethene
TPH	Total Petroleum Hydrocarbons
TTLC	Total Threshold Limit Concentration
US	United States
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound
kV	kilovolt
mg/kg	milligram per kilogram
mg/L	milligram per liter
MW	megawatt
µg/kg	microgram per kilogram

1.0 INTRODUCTION

ENVIRON International Corporation (ENVIRON), an environmental consulting firm, has prepared this Completion Report on behalf of Hitachi Global Storage Technologies, Inc. (Hitachi GST) for a portion of their property located at 5600 Cottle Road, San Jose, California ("the Site"). Hitachi GST is planning redevelopment activities for this portion of the Site. This Completion Report presents the results of the implementation of the Soil Inspection/Sampling Plan (SI/SP), Attachment IV—Hydraulic Elevators (ENVIRON 2005a), and focuses on six hydraulic elevators that were present on the Redevelopment Property.

1.1 Site Overview

In June 2005, David J. Powers & Associates (DJPA) prepared an Environmental Impact Report (EIR) for the proposed General Plan Amendment (GPA) and Planned Development (PD) Zoning on the approximately 321-acre Hitachi GST Site. The City of San Jose Planning Commission certified the Final EIR on June 6, 2005 (City of San Jose 2005a, 2005b). The Site, which is currently owned by Hitachi GST, was formerly owned and operated by International Business Machines Corporation (IBM). The location of the Site is shown on Figures 1.1 and 1.2. The Site layout prior to redevelopment is shown on Figure 1.3.

Hitachi GST has moved its research and development (R&D) and administrative office operations to a different location in San Jose (3403 Yerba Buena Road). A portion of land has been rezoned and will be sold and redeveloped into a mixed residential, commercial, and recreational open space area. The area to be redeveloped is divided into five Parcels (Parcel O-1 through O-5), as shown on Figure 1.4. In addition, Hitachi GST will be transferring ownership of Endicott Boulevard/Tucson Way, which borders the Site to the north, to the City of San Jose. For the purposes of this report, Parcels O-1 through O-5 and Endicott Boulevard/Tucson Way are hereafter referred to as "the Redevelopment Property". The Redevelopment Property is approximately 143 acres.

Hitachi GST plans to continue industrial operations (developing and manufacturing of computer storage devices) on the remaining portion of the Site, termed the Core Area. All manufacturing-related activities currently located on Parcels O-1 through O-5 have been moved to the Core Area under the redevelopment plan. The Core Area is also shown on Figure 1.4.

The Hitachi GST Site is a large quantity generator (LQG) of hazardous waste and also maintains a Resource, Conservation and Recovery Act (RCRA) Permit for on-Site storage and treatment of hazardous waste. The RCRA Permit encompasses the full 321 acres of the Site. Hitachi GST is working with the California Environmental Protection Agency (CalEPA) Department of Toxic Substances Control (DTSC) to remove the Redevelopment Property from the RCRA Permit.

1.2 Environmental Investigation Objectives

As part of the EIR, ENVIRON prepared a screening human health risk assessment (Screening HHRA) to evaluate the potential impacts on human health for Parcels O-1 through O-5. The overall objective of the Screening HHRA was to identify potential areas within these parcels needing further investigation and/or mitigation prior to redevelopment. To accomplish this objective, the

following steps were completed in the Screening HHRA for Parcels O-1 through O-5: 1) determine the nature of historical operations and chemical use; 2) compile and collect data regarding groundwater, soil gas, and soil conditions; 3) develop risk-based target concentrations (RBTCs) for comparison to groundwater, soil gas and soil data; and 4) compare the RBTCs to the data collected from each parcel to determine areas requiring further investigation or mitigation measures. The RBTCs correspond to the level that would pose a *de minimis* health risk to future on-site populations.

The Screening HHRA was followed by a Draft Current Conditions Report (CCR) (ENVIRON 2005b), which addressed Parcels O-1 through O-5 and Endicott Boulevard/Tucson Way. The Draft CCR plus the letter response to comments received from DTSC on the report (DTSC 2006) constitute the final CCR.

Additional inspection/investigation needed to fill data gaps identified in the Screening HHRA/CCR were addressed in the SI/SP and its associated attachments . The areas to be inspected/investigated were divided into the following nine categories:

Attachment I	Roads/Parking Lots
Attachment II	Aboveground Storage Tanks Associated with Emergency Generators
Attachment III	Buried Concrete Trenches, Building 028J, and Former Waste Vaults 02-04
Attachment IV	Hydraulic Elevators
Attachment V	Former Petroleum Underground Storage Tanks
Attachment VI	Former Orchard Areas
Attachment VII	Endicott Boulevard/Tucson Way
Attachment VIII	Other Remaining Areas
Attachment IX	Soil Gas Evaluation for Parcels O-1 and O-2

This Completion Report presents the results of implementation of Attachment IV – Hydraulic Elevators. The results of the SI/SP inspections/investigations will be used to determine if any mitigation/remediation measures are needed on the Redevelopment Property.

The SI/SP was followed by the Corrective Measures Study (CMS) Report (ENVIRON 2006). The CMS was prepared to address the presence of potential contamination in soil that may be encountered during building demolition and/or earthwork activities within the Redevelopment Property and/or discovered during implementation of the SI/SP. The CMS Report included residential remedial goals (RGs) for soil which were either the minimum residential RBTC or background concentrations.

1.3 Report Organization

This Completion Report is divided into six sections as follows:

Section 1.0 – Introduction: provides an overview of the Site and Redevelopment Property and outlines the report organization.

Section 2.0 – Site Overview: presents an overview of the Site history and surrounding area and summarizes proposed land uses.

Section 3.0 – Areas Recommended for Further Evaluation: summarizes the areas recommended for further inspection/investigation as related to this Completion Report.

Section 4.0 – Soil Inspection/Sampling Plan Implementation: provides an overview of the sampling activities/methodology and describes in detail the inspections/investigations completed as part of this Completion Report.

Section 5.0 – Conclusions: summarizes inspections/investigations conducted and provides recommendations, if needed, for any follow-up actions.

Section 6.0 – References: includes all references cited in this report.

Supporting data are presented in the attachments to this report. Appendices A and M includes photographs of the removal of the Building 028 and Building 051 hydraulic elevators, respectively. Appendices B through G, I, K, and N provide the laboratory analytical reports for the investigations discussed in this Completion Report. Appendices H, J, and L contain truck logs, Straight Bills of Lading, and hazardous waste manifests associated with the off-haul of impacted soil and liquids associated with the removal of the hydraulic elevators from the Redevelopment Property.

2.0 SITE OVERVIEW

2.1 Site History and Operations

The Site is located at 5600 Cottle Road in San Jose, Santa Clara County, California and is approximately 321 acres in size. Prior to 1955, the Site was agricultural land, primarily tree orchards, with associated residences. In 1955, IBM purchased the Site. The Storage Technology Division of IBM owned and operated the Site from 1955 through 2002. IBM designed, developed, and manufactured computer storage devices, including hard disk drives, read/write heads, and disk storage media at the Site. On or about January 1, 2003, Hitachi GST, a new company formed as a result of a strategic combination of IBM and Hitachi's storage technology businesses, bought the Site.

As shown on Figure 1.3, approximately 30 buildings were present on the Site prior to commencement of redevelopment activities in August 2006. On-site buildings were used for a range of activities, including manufacturing, testing, assembly, research, development, wastewater treatment, reverse osmosis/deionized water (RO/DI) production, utilities, chemical storage, other storage, security, offices, and cafeteria. Exterior areas of the Site primarily consisted of landscaped areas, orchards, sidewalks, water fountains, asphalt parking lots, and paved private roads. As discussed below, Hitachi GST plans to continue industrial operations (developing and manufacturing of computer storage devices) on the Core Area.

Two electrical substations located in the central-southeastern portion of the Site provide electricity to the Site. One 115-kilovolt (kV) substation, which contains a 50 megawatt (MW) electrical generator, is owned and operated by Hitachi GST; the other 115-kV substation is owned and operated by Pacific Gas & Electric (PG&E). Facility personnel reported that electricity for the Site is provided by PG&E, and Hitachi GST's generator is only operated for testing, when there is a major Site power outage or when PG&E requests that Hitachi GST provide electrical back up during peak demand periods. As discussed below, both electrical substations will remain.

In the early 1980s, chlorinated hydrocarbons were detected in soil beneath an on-site underground tank farm. Site-wide investigations showed that volatile organic compounds (VOCs), primarily Freon 113, trichloroethene (TCE), 1,1,1-trichloroethane (TCA) and 1,1-dichloroethene (1,1-DCE) were present in groundwater beneath and downgradient of the Site. Subsequently, the Site has undergone extensive remedial action including the remediation of solvent-impacted soil and extraction and treatment of on-site and off-site groundwater. Under an order from the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB-SF) (Order No. R2-2002-0082 – Final Site Cleanup Requirements, as amended by Order No. R2-2007-0004), IBM is obligated to remediate the groundwater (RWQCB-SF 2002, 2007). According to Hitachi GST, on-site groundwater remedial actions are expected to continue for at least 10 years.

2.2 Surrounding Area

The Site is located in a mixed industrial, commercial and residential area near the intersections of Monterey Highway, Blossom Hill Road, and United States (US) Route 101, approximately seven miles southeast of downtown San Jose. Figure 1.2 shows the immediate Site vicinity, which includes the following:

- Cottle Road is located to the west, with a shopping center, other commercial buildings, a hospital/medical center, and a medium-high density residential area beyond.

- IBM Building 025 (formerly part of the Site), which is still owned by IBM, is located to the northwest. This parcel is the proposed location of a future Lowe's Store.

- Parcel O-6 (formerly part of the Site) is located to the northeast. Hitachi GST transferred ownership of Parcel O-6, which is approximately 11 acres, to the City of San Jose in November 2005. The planned land use for this parcel is a future City of San Jose Police Substation.

- Southern Pacific Railroad and Caltrain right-of-way, the Blossom Hill Caltrain Station, and Monterey Highway are located to the north, with medium to medium-low density residential, a commercial shopping area, and US Route 101 beyond.

- Highway 85 and the Cottle Road Light Rail Station are located to the south, with a hospital/medical center, library, and single-family residential area beyond.

2.3 Future Land Use

As previously discussed, Hitachi GST has moved its R&D and administrative office operations to a different location in San Jose (3403 Yerba Buena Road). In turn, most of the R&D and administrative office buildings at the Site (Buildings 010, 012, 018, 026, 028, 028J, and 051) have been demolished. Two buildings, Buildings 009 (office) and 011 (cafeteria), on the Redevelopment Property are considered historically significant and will remain intact.

The Redevelopment Property, which covers approximately 143 acres, has been divided into five "outer" parcels (Parcels O-1 through O-5) and includes Endicott Boulevard/Tucson Way, as shown on Figure 1.4. Following building demolition, rough grading and main utility/roadway installation by Hitachi GST, Parcels O-1 through O-5 will be sold and redeveloped into a mixed residential, commercial, and recreational open space area. In addition, Hitachi GST will be transferring ownership of Endicott Boulevard/Tucson Way and newly constructed public roadways on Parcels O-1 through O-5 to the City of San Jose. Prior to property transfer, Hitachi GST is working with DTSC to remove the Redevelopment Property from the RCRA Permit.

Hitachi GST plans to continue industrial operations (developing and manufacturing of computer storage devices) on the Core Area. The Core Area contains all of the current manufacturing, chemical storage, waste storage, and wastewater treatment buildings/areas on the Site. All activities previously located on Parcels O-1 through O-5 have been moved to the Core Area under the redevelopment plan. There are no current RCRA-permitted sources in the Redevelopment Property. The existing PG&E substation will remain.

3.0 AREAS RECOMMENDED FOR FURTHER EVALUATION

3.1 Hydraulic Elevators History

Two buildings on the Redevelopment Property had hydraulic elevators, Building 028 and Building 051. Figure 3.1 shows the locations of the hydraulic elevators. The following history for hydraulic elevators was taken from the Screening HHRA and the CCR. In addition, ENVIRON conducted a Site visit as part of the Phase I Environmental Site Assessments (ESAs) prepared by ENVIRON in 2003 and 2004.

3.1.1 Building 028 Elevators

There were three hydraulic elevators in Building 028 referred to here as the freight elevator (Elevator No. 3), the passenger elevator in the lobby (Elevator No. 1), and the passenger elevator at C side of the building (Elevator No. 2). The locations of each elevator within the building are shown in Figure 3.2. The oil reservoir capacity of each hydraulic elevator varied, but ranged from 30 to 75 gallons. All of the oil reservoirs were equipped with secondary containment. Hitachi GST personnel reported that the elevator contractor inspected the elevator pits monthly. Several soil investigations associated with the hydraulic elevators in Building 028 have been conducted in the past, as described below:

- Freight Elevator in Building 028 (Elevator No. 3) Investigations. A soil investigation was conducted from June 1986 through December 1987 to evaluate the chemical content of soil beneath a hydraulic elevator shaft in Building 028 following discovery of a hydraulic fluid (Shell Tellus 32) leak. Five soil borings were drilled in June and August 1986. The total depth explored beneath the floor of the elevator pit was 39 feet (approximately 61 feet below ground surface [bgs]). Twenty-eight soil samples were collected from the five borings and analyzed for oil and grease (O&G), which was detected up to 11,000 milligrams per kilogram (mg/kg). Harding Lawson Associates (HLA) concluded that soils containing O&G in concentrations above 1,000 mg/kg should be removed. Soil in the vicinity of these five borings was excavated. Because of structural integrity of the building, the elevator support, and the foundation footings, limits were placed on the extent of excavation. Residual O&G concentrations remaining after the excavation appear to be up to 250 mg/kg.

  Additional soil sampling in this elevator shaft was conducted approximately one year later (October through December 1987) and analyzed for O&G, as well as benzene. Seven soil samples were collected from seven borings at varying depths ranging from approximately 4 to 40 feet beneath the floor of the elevator pit (approximately 26 to 62 feet bgs). O&G was detected up to 5,900 mg/kg in these samples. Benzene was not detected in any of the samples; the detection limit was 50 micrograms per kilogram (μg/kg) for two samples and 100 μg/kg for five samples. It appeared that residual petroleum in soil existed in this area. IBM personnel did not recall any additional excavation having been performed in this area. However, IBM personnel indicated to ENVIRON that the RWQCB-SF had previously granted permission to leave the residual hydraulic fluid in-place. This was done for several reasons, including: 1) the oil is not

extremely mobile in the absence of a driving force (e.g. water intrusion) or even with the driving force present; 2) the oil is not very toxic; 3) the likelihood of contact with the residual oil was believed to be low; and 4) natural degradation was expected to further reduce the concentration of the residual oil.

- Passenger Elevator in Lobby of Building 028 (Elevator No. 1) Investigation. In June 1989, HLA investigated the soil beneath the passenger elevator in the lobby of Building 028. Three borings were drilled to a maximum depth of 19 feet beneath the floor of the elevator pit, and soil samples were collected to evaluate whether the soil beneath the concrete elevator pit floor contained hydraulic oil (Shell Tellus 32). Samples were collected from each boring at approximately 6-foot intervals. During the investigation, the HLA field geologist encountered an oily substance below the concrete. The soil samples were analyzed for O&G.[1] In addition, one sample at 1.5-foot depth was also analyzed using the United States Environmental Protection Agency (USEPA) Test Methods 8010 and 8020 for total petroleum hydrocarbons (TPH) as kerosene and diesel.

  The results of the chemical analyses indicated that O&G was present in the underlying soils up to 14,000 mg/kg to a depth of approximately six feet beneath the floor of the elevator. The chemical analysis revealed that the oily substance was not Shell Tellus 32, but likely a heavier mixture of oil and grease. Because oil and grease is not used as the hydraulic fluid in the elevator ram cylinder, the presence of O&G is most likely the result of a surface release prior to installation of the elevator pit floor. IBM excavated the soil beneath the elevator pit floor to a depth of approximately 10 feet. Subsequent to the excavation, HLA concluded that no further investigation was warranted.

- Passenger Elevator at C side of Building 028 (Elevator No. 2) Investigation. In July 1989, HLA investigated the soil beneath the southeastern elevator in Building 028. Three borings were drilled to a maximum depth of 36 feet beneath the floor of the elevator pit, and soil samples were collected to evaluate whether the soil beneath the concrete elevator pit floor contained hydraulic oil (Shell Tellus 32). Samples were collected from each boring at approximately 6-foot intervals. Ten soil samples were analyzed for Shell Tellus Oil 32, which was not detected (<50 mg/kg) in any of the samples. HLA concluded that no further investigation was warranted.

3.1.2 Building 051 Elevators

There were three hydraulic elevators in Building 051 referred to here as the Loading Dock Elevator, Lobby Elevator No. 1, and Lobby Elevator No. 2. The locations of each elevator within Building 051 are shown in Figure 3.3. The oil reservoir capacity of each hydraulic elevator varied, but ranged from 30 to 75 gallons. All of the oil reservoirs were equipped with secondary containment. Hitachi GST personnel reported that the elevator contractor inspected elevator pits monthly. Three soil investigations associated with hydraulic elevators in Building 051 had been conducted previously, as described below:

[1] A Letter from the RWQCB-SF to IBM dated February 1, 1989 states that because there is no benzene in the Shell Tellus Oil hydraulic fluid, benzene does not have to be included in follow-up monitoring for remedial actions taken for leaks of elevator hydraulic fluid.

- Lobby Elevator No. 1 Investigation. In November 1989, HLA investigated the soil beneath Lobby Elevator No. 1 in Building 051. Three borings were drilled to a maximum depth of 37 feet beneath the floor of the elevator pit, and soil samples were collected to evaluate whether the soil beneath the concrete elevator pit floor contained hydraulic oil (Shell Tellus 32). Samples were collected from each boring at approximately 6-foot intervals. Ten soil samples were analyzed for Shell Tellus Oil 32, which was not detected (<50 mg/kg) in any of the samples. HLA concluded that no further investigation was warranted.

  In addition, on January 20, 2000, approximately 50 gallons of hydraulic fluid leaked into the concrete elevator pit due to pump failure. The hydraulic fluid was removed from the pit and cleanup was completed by January 24, 2000. No soil samples were collected as a result of this spill.

- Loading Dock Elevator Investigation. In November 1989, HLA investigated the soil beneath the loading dock elevator in Building 051. Three borings were drilled to a maximum depth of 37 feet beneath the floor of the elevator pit, and soil samples were collected to evaluate whether the soil beneath the concrete elevator pit floor contained hydraulic oil (Shell Tellus 32). Samples were collected from each boring at approximately 6-foot intervals. Nine soil samples were analyzed for Shell Tellus Oil 32, which was not detected (<50 mg/kg) in any of the samples. HLA concluded that no further investigation was warranted.

- Lobby Elevator No. 2 Investigation. An additional soil investigation was conducted within Building 051; however, IBM and their environmental consultant (MACTEC) were unsure why this soil investigation was conducted at the time the CCR or the Screening HHRA was written. Since then, a soil investigation report written by HLA has been located documenting the advancement of three soil borings beneath the Lobby Elevator No. 2 in Building 051 (HLA 1989). Borings were advanced to 31 and 37 feet below the elevator pit surface. A total of ten samples were analyzed for Shell Tellus Oil 32, which was not detected (<50 mg/kg) in any of the samples. HLA concluded that no further investigation was warranted.

3.2 Recommendations for Additional Inspection/Investigation

The following additional inspections/investigations were identified for hydraulic elevators in the SI/SP:

- Conduct additional sampling and remediation, if necessary, beneath the Freight Elevator (Elevator No. 3) in Building 028 after demolition of the building.

- An environmental engineer should inspect the area surrounding the elevator shaft of the passenger elevator in the lobby of Building 028 (Elevator No. 1) and associated hydraulic fluid reservoir once they have been removed. If any indications of leaking are present (visual staining, odor), soil sampling should be conducted.

- An environmental engineer should inspect the area surrounding the elevator shaft of the passenger elevator at C side of Building 028 (Elevator No. 2) and associated hydraulic fluid reservoir once they have been removed. If any indications of leaking are present (visual staining, odor), soil sampling should be conducted.

- An environmental engineer should inspect the area surrounding the elevator shaft of the Loading Dock Elevator at Building 051 and associated hydraulic fluid reservoir once they have been removed. If any indications of leaking are present (visual staining, odor), soil sampling should be conducted.

- An environmental engineer should inspect the area surrounding the elevator shaft of Lobby Elevator No. 1 at Building 051 and associated hydraulic fluid reservoir once they have been removed. If any indications of leaking are present (visual staining, odor), soil sampling should be conducted.

- An environmental engineer should inspect the area surrounding the elevator shaft of Lobby Elevator No. 2 at Building 051 and associated hydraulic fluid reservoir once they have been removed. If any indications of leaking are present (visual staining, odor), soil sampling should be conducted.

4.0 SOIL INSPECTION/SAMPLING PLAN IMPLEMENTATION

4.1 Building 028

An environmental engineer from ENVIRON was on-site during the removal of elevator pits and subsurface equipment associated with the three elevators in the former Building 028. Following removal of the Freight Elevator (Elevator No. 3), ENVIRON collected soil and groundwater samples beneath the elevator pit. TPH and polyaromatic hydrocarbons (PAHs) were detected in soil and TPH was detected in groundwater in the vicinity of Elevator No. 3. PAH-containing soil was excavated prior to backfill of the elevator pit. In addition, following removal of the Passenger Elevator (Elevator No. 1) pit, ENVIRON collected one soil sample. Site photographs from removal of elevator pits from the former Building 028 are included as Appendix A.

Table 4.1 provides a summary of all samples collected in association with the investigation of elevators in the former Building 028. The results of the investigation are presented below.

4.1.1 Building 028 - Freight Elevator

On Tuesday, January 16, 2007, Ferma Corporation (Ferma), a California certified contractor, removed the hydraulic piston and the concrete slab of the Freight Elevator (Elevator No. 3) pit from the Building 028 basement. Activities were overseen by representatives from ENVIRON. The Freight Elevator pit was approximately 10 feet long by 10 feet wide and approximately five feet deep (as measured from the top of the Building 028 basement floor) or approximately 22 feet below grade (grade being the former first floor of Building 028). Figure 4.1 shows an aerial view of the Freight Elevator pit. Figure 4.2 shows a side view of the Freight Elevator pit.

In the center of the Freight Elevator pit was a hole approximately 30 inches in diameter and 30 feet deep. This hole, referred to as the elevator caisson, was lined with concrete and housed the hydraulic piston which was responsible for moving the elevator up and down between floors. When the elevator was operational, the hydraulic piston was lubricated with hydraulic oil.

Ferma first pulled out the hydraulic piston (which was approximately 35 feet long) from inside the caisson and pit and placed it on visqueen adjacent to the elevator pit. No liquid was observed emanating from the piston, however ENVIRON observed liquid inside the elevator caisson approximately 12 feet below the top of the caisson rim. It appeared that separate phase liquid was present on the surface of the liquid inside the caisson. A sample of this liquid, labeled GW-028-EL3-1/16/07, was collected using a polyethylene bailer and submitted to Severn Trent Laboratory, Inc. (STL) for analysis of TPH by USEPA Method 8015 on a 24-hour turn around time (sample results are discussed below).

While awaiting the results of this sample, Ferma covered the caisson opening with a heavy steel plate to prevent any debris from falling inside the caisson. Ferma then proceeded to remove the concrete slab from the elevator pit surrounding the caisson. Once the elevator pit slab was removed, ENVIRON inspected the soil immediately beneath the slab. No staining or odors were observed in the soil.

4.1.1.1 Soil Sampling and Results

In accordance with Attachment IV of the SI/SP, soil was sampled beneath the former Freight Elevator on January 17, 2007. Three borings (028-EL3-B1, 028-EL3-B2, and 028-EL3-B3) were advanced beneath the Freight Elevator pit to a depth of 10 feet below the pit floor (32 feet bgs). The soil sample locations are shown on Figure 4.1. Soil samples were collected from each boring at depths of zero feet, 4 feet and 8 feet below the pit floor (due to the depth of the pit, these soil samples would correspond to depths of approximately 22, 26, and 30 feet bgs, respectively). Saturated soils were encountered at approximately 10 feet beneath the pit (32 feet bgs). Samples were submitted to STL for analysis of TPH.

Table 4.2 summarizes the soil sampling results for TPH. The laboratory analytical results are included in Appendix B. Sample results were compared to residential soil remedial goals (RGs) as defined in the Corrective Measure Study (CMS) for the Redevelopment Property (ENVIRON 2006). TPH was detected in several soil samples, although at levels below the soil RGs.

In accordance with Attachment IV of the SI/SP, all samples with positive detections for TPH were analyzed for PAHs by USEPA Method 8270. In addition, sample 028-EL3-B1-1 (the sample with the highest detected TPH concentration) was submitted for polychlorinated biphenyls (PCB) analysis by USEPA Method 8082. Table 4.3 summarizes the soil sampling results for PAHs. The laboratory analytical results are included in Appendix B. PCBs were not detected in the 028-EL3-B1-1 sample.

As shown on Table 4.3, PAHs were detected in the shallow soil of the Freight Elevator pit (samples collected at zero feet beneath the pit or 22 feet bgs), but were not detected in any of the deeper samples. As PAHs had not previously been detected in soil within the Redevelopment Property, no RGs had been developed for these compounds. Risk-based target concentrations (RBTCs) were developed for PAHs following the methodology outlined in the CCR. As shown in Table 4.3, two samples exceeded the benzo(a)pyrene RBTC of 0.038 mg/kg: 028-EL3-B1-1 with a concentration of 0.32 mg/kg at 22 feet bgs and 028-EL3-B3-1 with a concentration of 0.093 mg/kg at 22 feet bgs. No other samples or constituents exceeded their respective RBTC.

4.1.1.2 Caisson Sampling and Results

Results of the sample collected from the liquid observed inside the caisson (GW-028-EL3-1/16/07) are summarized in Table 4.4 and included in Appendix B. The results indicated that elevated levels of TPH in both the diesel and motor oil range were present in the liquid (120 milligrams per liter [mg/L]).

At that time it was believed that the liquid observed inside the caisson may have been contained inside the caisson and was not related to groundwater. On January 25, 2007, Ferma pumped the liquid observed inside the caisson into 55-gallon drums.

A total of 15 drums were filled with liquid, but the caisson could not be pumped dry. After the level of liquid inside the caisson was pumped down and the 15 drums were filled, the liquid level inside the caisson began to rise again indicating that the caisson was connected to the groundwater aquifer (either through the lack of a bottom of the caisson or a crack in the caisson wall).

4.1.1.3 Groundwater Sampling and Results

To assess impacts from the hydraulic piston on groundwater in the vicinity of the caisson, two grab groundwater samples were collected from beneath the Freight Elevator pit on January 25, 2007. Samples were labeled GW-028-EL3-A and GW-028-EL3-B and were collected in the vicinity of soil borings 028-EL3-B1 and 028-EL3-B3, respectively. The locations of these samples are shown on Figure 4.1.

Grab groundwater samples were submitted to STL for analysis of TPH by USEPA Method 8015, PAHs by USEPA Method 8270, and volatile organic compounds (VOCs) by USEPA Method 8260. Groundwater sampling results are summarized in Table 4.4 and included in Appendix C. Sample results indicated that both TPH as diesel (at concentrations of 2.3 mg/L and 0.3 mg/L) and TPH as motor oil (at concentrations of 3.5 mg/L and 0.52 mg/L) are present in the groundwater in the immediate vicinity of the elevator caisson. PAHs and VOCs were not detected in groundwater. ENVIRON recommended additional groundwater sampling in order to characterize TPH in groundwater in the vicinity of the former Freight Elevator.

4.1.1.4 Soil Excavation and Sampling

In order to facilitate the backfilling of the Freight Elevator pit, and to ensure that no potential source for groundwater contamination remained, the soil containing PAHs was excavated on January 31, 2007 in the vicinity of soil boring 028-EL3-B1. The excavation extended from the west wall of the elevator pit to borings 028-EL3-B2 and 028-EL3-B3 to the east and to the north and south walls of the elevator pit. The excavation was approximately four feet deep as the previous sample results had shown that PAHs were not detected at this depth. Soil removed from the excavation was stockpiled on visqueen and sampled for eventual off-site disposal. Confirmation sidewall samples were collected from the north, west, and south sidewalls of the excavation. The approximate excavation extent and confirmation soil sample locations are shown on Figure 4.1. The soil sample results for TPH and PAHs are summarized in Table 4.5 and are included in Appendix D. There were no detections in the confirmation samples above RGs or RBTCs.

4.1.1.5 Caisson Abandonment and Elevator Pit Restoration

On February 2, 2007, Ferma abandoned the caisson by filling it in with concrete slurry. A tremie pipe was placed to the bottom of the caisson and the caisson was filled from the bottom up with the slurry. As it filled up with slurry, the liquid inside was displaced towards the top of the caisson. The displaced liquid was pumped from

inside the caisson and transferred to 55-gallon drums. The caisson was filled with concrete slurry to the rim. A total of 23 55-gallon drums of liquid were generated.

On February 6, 2007, Ferma began backfilling the Freight Elevator pit.

4.1.1.6 Additional Groundwater Sampling and Results

Following excavation of soil containing PAHs and backfill of the resulting pit, six additional grab groundwater samples were collected in the vicinity of the former Freight Elevator on March 1 and 2, 2007. Samples were collected from five locations to the north, west and south of the former groundwater sample location GW-028-EL3-A on an approximately 50-foot radius. One sample was also collected approximately 100 feet northwest of GW-028-EL3-A. The sample locations were labeled GW-028-EL3-C through H and are shown on Figure 4.1.

Grab groundwater samples were submitted to STL for analysis of TPH by USEPA Method 8015. Groundwater sampling results are summarized in Table 4.6 and included in Appendix E. TPH as diesel was detected at levels ranging between 0.051 and 1.1 mg/L. The results indicate a decrease in the concentration of TPH in groundwater with distance from the former Freight Elevator.

Hitachi GST has a deed restriction for the Site from the RWQCB-SF, which prohibits use of shallow (A-aquifer) groundwater as a drinking water source until IBM's cleanup standards are met. Further, it is not likely there will be direct contact with groundwater at its current depth (greater than 24 feet bgs) in the Building 028 Freight Elevator area. As no VOCs were detected in groundwater, vapor migration will not be an issue. Based on the restriction on the use of shallow groundwater as a drinking water source, the depth to groundwater (approximately 24 feet bgs), the absence of VOCs and PAHs, the decreasing concentrations of TPH with distance from the former elevator pit, and the likelihood of natural degradation of TPH, no further investigation/action is recommended for groundwater in this area.

4.1.2 Building 028 - Passenger Elevator (Elevator No. 1)

On January 11, 2007, Ferma removed the hydraulic piston and the concrete slab of the passenger elevator in the lobby (Elevator No. 1) from the Building 028 basement. ENVIRON observed some hydraulic oil to remain in the piston after it was removed. Although ENVIRON did not observe any indications of leaking (visual staining, odor), one sample (028-EL1-S1) was collected from beneath the elevator pit. The sample was submitted to STL for analysis of TPH by USEPA Method 8015. TPH was not detected in the sample. The laboratory analytical results are included in Appendix F.

4.1.3 Building 028 - Passenger Elevator (Elevator No. 2)

On January 26, 2007, Ferma removed the concrete slab of the passenger elevator at C side of Building 028 (Elevator No. 2). Elevator No. 2 had an aboveground piston that had been

removed previously during the demolition of the building. The elevator pit was observed to be filled with water prior to removal, due to rain and on-site dust control activities. Ferma pumped the water contained in the pit into 11 55-gallon drums for disposal. After the water was pumped out, ENVIRON observed the concrete slab to be intact. Following removal of the pit, ENVIRON inspected the soil beneath Elevator No. 2 and did not observe any staining or odors. The soil beneath the pit was also observed to be dry, indicating that the water previously contained in the pit had not leaked into the soil beneath. There were no samples collected from the pit of Elevator No. 2.

4.1.4 Soil and Water Disposal

The soil stockpile generated as a result of the Building 028 Freight Elevator pit excavation was placed on visqueen and covered. One four-point composite sample and three distinct samples were collected from the stockpile on January 31, 2007. The composite sample was analyzed for pH by USEPA Method 9045, TPH by USEPA Method 8015, metals by USEPA Method 6010B and 7471A, PAHs by USEPA Method 8270, and PCBs by USEPA Method 8082. The distinct samples, which were collected using an En Core® sampler, were analyzed for VOCs by USEPA Method 8260. The stockpile sampling results are summarized in Table 4.7 and included in Appendix G. No VOCs or PCBs were detected. As shown in Table 4.7, all of the detected compounds were present at levels below their respective total threshold limit concentrations (TTLCs) indicating that the soil could be disposed of as non-hazardous waste. On March 9, 2007, the stockpile was transported to Altamont Landfill in Livermore, California by Dillard Environmental Trucking. A total of 49.18 tons of PAH-impacted soil was transported to the Altamont Landfill. Copies of the Truck Log and Bills of Lading are included as Appendix H.

Results from the liquid sampled from the Building 028 Freight Elevator caisson on January 16, 2007 and from an additional sample collected on January 25, 2007 during pump-out of the caisson, which was analyzed by Hitachi GST's on-site laboratory (not a State-certified laboratory), were used to generate a waste profile for the 38 drums of liquid generated from the liquid pump out of the caisson. The analytical results from the sample collected on January 16, 2007 are included in Appendix A. The analytical results from the sample collected on January 25, 2007 are included in Appendix I. The drums were transported off-site as hazardous waste for disposal at Romic Environmental Technologies Corp. (Romic) in East Palo Alto, California. The hazardous waste manifest for disposal of the liquid is included as Appendix J.

The 11 drums of liquid generated from the liquid pump out of the Building 028 Passenger Elevator No. 2 pit were sampled and analyzed at Hitachi's on-site analytical laboratory (not a State-certified laboratory). The samples were analyzed for CAM 17 metals, nonhalogenated VOCs, pH, total organic content, total suspended solids, percent water, density, and flash point. The analytical results are included as Appendix K. Nine of the drums were treated by Hitachi GST's on-site industrial wastewater treatment system and two were transported off-site as hazardous waste for disposal at 21st Century EMI in Fernley, Nevada. The hazardous waste manifest for the two drums transported off-site is included as Appendix L.

4.2 Building 051

An environmental engineer from ENVIRON was on-site during the removal of elevator pits and subsurface equipment associated with the three elevators in the former Building 051. The two passenger elevators in Building 051 (Lobby Elevator No. 1 and No. 2) shared the same elevator pit; thus, only two elevator pits were inspected/investigated. Following removal of the elevators, ENVIRON collected soil samples from beneath both elevator pits. Site photographs from removal of elevator pits from Building 051 are included as Appendix M.

Table 4.1 provides a summary of all samples collected during the investigation. The results of the inspections/investigations are presented below.

4.2.1 Building 051 – Passenger Elevators (Lobby Elevator No. 1 and Lobby Elevator No. 2)

On April 9, 2007, ENVIRON observed the removal of the shared elevator pit associated with Lobby Elevators No. 1 and No. 2. Prior to removal of the concrete slab, ENVIRON observed the concrete to be intact with no major depressions or holes. Following removal of a section of the slab, ENVIRON observed the soil beneath the pit to be dark black with small areas that were purple/orange in color. A mild odor was present in the vicinity of the pit. Based on these observations, ENVIRON collected one sample (SOIL-B051-EL1,2) from soil beneath the elevator pit. The sample was submitted to STL for analysis of TPH by USEPA Method 8015. A low level of TPH as diesel (2.3 mg/kg) was detected in the sample. In accordance with the SI/SP, the sample was then submitted for analysis of PAHs by USEPA Method 8270. Based on the staining observed beneath the pit, the sample was also analyzed for CAM 17 Metals by USEPA Method 6010B. There were no PAHs detected in the sample. Metals were detected at levels below the residential soil RGs. The soil sample results are shown in Table 4.8. The laboratory analytical report is included in Appendix N. After Building 051 was demolished and the slab was removed, an environmental engineer from ENVIRON inspected the soil in the vicinity of the former elevator pit on May 30, 2007. No staining or odors were observed in the soil, indicating that the staining and mild odor previously noted beneath the elevator pit was limited in extent. Given the analytical results and the limited extent of staining, no further action is recommended.

4.2.2 Building 051 – Loading Dock Elevator

On April 9, 2007, ENVIRON observed the removal of the elevator pit associated with the Loading Dock Elevator in the former Building 051. Prior to removal of the concrete slab, ENVIRON observed the concrete to be intact with no major depressions or holes. Following removal of a section of the slab beneath the elevator pit, ENVIRON observed the soil beneath the pit to be dark black with small areas that were purple/orange in color. A mild odor was also noticed in the vicinity of the pit. Based on these observations, ENVIRON collected one sample (SOIL-B051-EL3) from soil beneath the elevator pit. The sample was submitted to STL for analysis of TPH by USEPA Method 8015. A low level of TPH as diesel (3.3 mg/kg) was detected in the sample. In accordance with the SI/SP, the

sample was submitted for analysis of PAHs by USEPA Method 8270 and PCBs by USEPA Method 8082.[2] Based on the staining observed beneath the pit, the sample was also analyzed for CAM 17 Metals by USEPA Method 6010B. There were no PAHs or PCBs detected in the sample. Metals were detected at levels below the residential soil RGs. The soil sample results are shown in Table 4.8. The laboratory analytical report is included in Appendix N. After Building 051 was demolished and the slab was removed, an environmental engineer from ENVIRON inspected the soil in the vicinity of the former elevator pit on May 30, 2007. No staining or odors were observed in the soil, indicating that the staining and mild odor previously noted beneath the elevator pit was limited in extent. Given the analytical results and the limited extent of staining, no further action is recommended.

[2] According to the SI/SP, samples with positive detections of TPH would be further analyzed for PAHs. In addition, the soil sample with the maximum detected TPH concentration would be further analyzed for PCBs.

5.0 CONCLUSIONS

TPH-impacted groundwater is present in the vicinity of the former Building 028 Freight Elevator. Based on current Site groundwater restrictions, the depth to groundwater, the absence of VOCs or PAHs, the decreasing concentrations of TPH with distance from the area, and the likelihood of natural degradation of TPH, ENVIRON recommends no further action for the Building 028 Freight Elevator. No further action is also recommended for the other two hydraulic elevators in former Building 028 on the Redevelopment Property.

No further action is recommended for hydraulic elevators in former Building 051 on the Redevelopment Property.

6.0 REFERENCES

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TABLES

TABLE 4.1
Summary of Sample Locations/Methods - Hydraulic Elevators
Hitachi GST
San Jose, California

Sample Location ID	Parcel	Sample Type	Area	Location	Figure	Sample Top Depth (feet bgs)	Sample Date	Sampling Consituent	USEPA Analysis Method Number
GW-028-EL3-1/16/07	O-4	Liquid	Building 028	Liquid in elevator caisson	None	approx. 34	1/16/2007	TPH (d., m.o.)	8015B
028-EL3-B1-1	O-4	Soil	Building 028	Elevator No. 3 Pit	4.1	22	1/17/2007	TEPH	3510/8015M
								PAHs	8270SIM
								PCBs	8082
028-EL3-B1-2						26	1/17/2007	TEPH	3510/8015M
								PAHs	8270SIM
028-EL3-B1-3						30	1/17/2007	TEPH	3510/8015M
								PAHs	8270SIM
028-EL3-B2-1	O-4	Soil	Building 028	Elevator No. 3 Pit	4.1	22	1/17/2007	TEPH	3510/8015M
								PAHs	8270SIM
028-EL3-B2-2						26	1/17/2007	TEPH	3510/8015M
								PAHs	8270SIM
028-EL3-B2-3						30	1/17/2007	TEPH	3510/8015M
								PAHs	8270SIM
028-EL3-B3-1	O-4	Soil	Building 028	Elevator No. 3 Pit	4.1	22	1/17/2007	TEPH	3510/8015M
								PAHs	8270SIM
028-EL3-B3-2						26	1/17/2007	TEPH	3510/8015M
								PAHs	8270SIM
028-EL3-B3-3						30	1/17/2007	TEPH	3510/8015M
GW-028-EL3-A	O-4	Water	Building 028	Grab GW from outside of caisson under pit floor	4.1	approx. 31	1/25/2007	TPH (d., m.o.)	8015B
								PAHs	8270
								VOCs	8260B
GW-028-EL3-B	O-4	Water	Building 028	Grab GW from outside of caisson under pit floor	4.1	approx. 31	1/25/2007	TPH (d., m.o.)	8015B
								PAHs	8270
								VOCs	8260B
GW-028-EL3-C	O-4	Water	Building 028	Grab GW stepout sample	4.1	24.1	3/1/2007	TPH (d., m.o.)	8015B
GW-028-EL3-D	O-4	Water	Building 028	Grab GW stepout sample	4.1	24.4	3/2/2007	TPH (d., m.o.)	8015B
GW-028-EL3-E	O-4	Water	Building 028	Grab GW stepout sample	4.1	24.3	3/2/2007	TPH (d., m.o.)	8015B
GW-028-EL3-F	O-4	Water	Building 028	Grab GW stepout sample	4.1	24.3	3/2/2007	TPH (d., m.o.)	8015B
GW-028-EL3-G	O-4	Water	Building 028	Grab GW stepout sample	4.1	24.5	3/2/2007	TPH (d., m.o.)	8015B
GW-028-EL3-H	O-4	Water	Building 028	Grab GW stepout sample	4.1	24.8	3/2/2007	TPH (d., m.o.)	8015B

TABLE 4.1
Summary of Sample Locations/Methods - Hydraulic Elevators
Hitachi GST
San Jose, California

Sample Location ID	Parcel	Sample Type	Area	Location	Figure	Sample Top Depth (feet bgs)	Sample Date	Sampling Consituent	USEPA Analysis Method Number
028-EL3-SWWest	O-4	Soil	Building 028	Sidewall sample from excavation of freight elevator	4.1	24	1/31/2007	TPH (d., m.o.)	8015B
								PAHs	8270
028-EL3-SWNorth	O-4	Soil	Building 028	Sidewall sample from excavation of freight elevator	4.1	24	1/31/2007	TPH (d., m.o.)	8015B
								PAHs	8270
028-EL3-SWSouth	O-4	Soil	Building 028	Sidewall sample from excavation of freight elevator	4.1	24	2/1/2007	TPH (d., m.o.)	8015B
								PAHs	8270
028-EL3-Stockpile	O-4	Soil	Building 028	Stockpile sample from excavation of freight elevator pit	None	N/A	1/31/2007	TPH (d., m.o.)	8015B
								PAHs	8270
								CAM 17 Metals	6010B & 7470/7471
								pH	9045
								VOCs	8260B
								PCBs	8082
028-EL1-S1	O-4	Soil	Building 028	Elevator No. 1 Pit	None	26	1/24/2007	TEPH	3510/8015M
Soil-B051-EL1,2	O-5	Soil	Building 051	Elevator No. 1 and No.2 Pit	None	5	4/9/2007	TPH (d., m.o.)	8015B
								PAHs	8270
								CAM 17 Metals	6010B & 7470/7471
Soil-B051-EL3	O-5	Soil	Building 051	Elevator No. 3 Pit	None	5	4/9/2007	TPH (d., m.o.)	8015B
								PAHs	8270
								PCBs	8080
								CAM 17 Metals	6010B & 7470/7471

Notes:
d. = diesel
m.o. = motor oil
bgs = below ground surface
N/A = Not Applicable
TEPH = Total Extractable Petroleum Hydrocarbons
TPH = Total Petroleum Hydrocarbons
PAH = Polyaromatic Hydrocarbon
PCB = Polychlorinated Biphenyl
VOC = Volatile Organic Compound
USEPA = United States Environmental Protection Agency

Table 4.2
B028 Freight Elevator (Elevator No. 3) - Soil Results - Total Petroleum Hydrocarbons
Hitachi GST
San Jose, California

Chemical	Remedial Goal (RG) (a) (mg/kg)	028-EL3-B1-1 (b) (mg/kg)	028-EL3-B1-2 (mg/kg)	028-EL3-B1-3 (mg/kg)	028-EL3-B2-1 (b) (mg/kg)	028-EL3-B2-2 (mg/kg)	028-EL3-B2-3 (mg/kg)	028-EL3-B3-1 (b) (mg/kg)	028-EL3-B3-2 (mg/kg)	028-EL3-B3-3 (mg/kg)
Sample Date		**01/17/2007**	**01/17/2007**	**01/17/2007**	**01/17/2007**	**01/17/2007**	**01/17/2007**	**01/17/2007**	**01/17/2007**	**01/17/2007**
Sample Depth (feet bgs)		**22.0 - 22.5**	**26.0 - 26.5**	**30.0 - 30.5**	**22.0 - 22.5**	**26.0 - 26.5**	**30.0 - 30.5**	**22.0 - 22.5**	**26.0 - 26.5**	**30.0 - 30.5**
Total Petroleum Hydrocarbons										
TPH-Diesel	*5,200*	**250**	**1.2**	**1.0**	**24**	**250**	< 0.93	**68**	**1**	< 0.97
TPH-Motor Oil	*2,300*	**760**	< 47	< 48	**83**	**540**	< 47	**420**	< 48	< 49

Note:
bgs = below ground surface
mg/kg = milligrams per kilogram.
TPH = Total Petroleum Hydrocarbons
< = below the reported detection limit.

Numbers in bold denote a detection above the laboratory reporting limit.

(a) Remedial Goals (RGs) as presented in the Corrective Measures Study (CMS) for the Redevelopment Property (*Source: CMS Report, Redevelopment Property, Hitachi Global Storage Technologies, Inc., 5600 Cottle Road, San Jose, California. Prepared by ENVIRON, June 28, 2006: revised August 31, 2006*)

(b) Sample was excavated on January 31, 2007.

Table 4.3
B028 Freight Elevator (Elevator No. 3) - Soil Results - Polyaromatic Hydrocarbons
Hitachi GST
San Jose, California

Chemical	RBTC (a) (mg/kg)	028-EL3-B1-1 (b) (mg/kg)	028-EL3-B1-2 (mg/kg)	028-EL3-B1-3 (mg/kg)	028-EL3-B2-1 (b) (mg/kg)	028-EL3-B2-2 (mg/kg)	028-EL3-B2-3 (mg/kg)	028-EL3-B3-1 (b) (mg/kg)	028-EL3-B3-2 (mg/kg)
Sample Date		**01/17/2007**	**01/17/2007**	**01/17/2007**	**01/17/2007**	**01/17/2007**	**01/17/2007**	**01/17/2007**	**01/17/2007**
Sample Depth (feet bgs)		**22.0 - 22.5**	**26.0 - 26.5**	**30.0 - 30.5**	**22.0 - 22.5**	**26.0 - 26.5**	**30.0 - 30.5**	**22.0 - 22.5**	**26.0 - 26.5**
Polyaromatic Hydrocarbons									
Benzo(a)anthracene	*0.38*	**0.2**	< 0.005	< 0.005	**0.026**	< 0.005	< 0.005	**0.051**	< 0.005
Benzo(a)pyrene	*0.038*	**0.32**	< 0.005	< 0.005	**0.037**	< 0.005	< 0.005	**0.093**	< 0.005
Benzo(b)fluoranthene	*0.38*	**0.12**	< 0.005	< 0.005	**0.017**	< 0.005	< 0.005	< 0.05	< 0.005
Benzo(g,h,i)perylene	*1,100*	**0.36**	< 0.005	< 0.005	**0.038**	< 0.005	< 0.005	**0.07**	< 0.005
Chrysene	*3.8*	**0.35**	< 0.005	< 0.005	**0.045**	< 0.005	< 0.005	**0.084**	< 0.005
Dibenz(a,h)anthracene	*0.11*	< 0.05	< 0.005	< 0.005	**0.0076**	< 0.005	< 0.005	< 0.05	< 0.005
Indeno(1,2,3-cd)pyrene	*0.38*	**0.11**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005
Pyrene	*2,200*	**0.2**	< 0.005	< 0.005	**0.021**	< 0.005	< 0.005	< 0.05	< 0.005

Notes:
bgs = below ground surface.
mg/kg = milligrams per kilogram.
< = below the reported detection limit.

Numbers in **bold** denote a detection above the laboratory reporting limit.
Highlighted values exceed the RBTC.
Sample 028-EL3-B3-3 was only analyzed for total petroleum hydrocarbons (TPH) and is not shown in the table above.

(a) Risk-Based Target Concentrations (RBTCs) were developed following the methodology outlined in the Current Conditions Report (CCR) for the Redevelopment Property (*Source: Draft CCR, Hitachi Global Technologies, Inc., Redevelopment Area and Endicott Boulevard/Tucson Way, 5600 Cottle Road, San Jose, California. Prepared by ENVIRON, July 2005)*

(b) Sample was excavated on January 31, 2007.

Table 4.4
B028 Freight Elevator (Elevator No. 3) - Caisson and Grab Groundwater Results
Hitachi GST
San Jose, California

Chemical	GW-028-EL3-01/16/07 (a) (mg/L)	GW-028-EL3-A (mg/L)	GW-028-EL3-B (mg/L)
Sample Date	**01/16/2007**	**01/25/2007**	**01/25/2007**
Sample depth (feet bgs)	**~ 34 (c)**	**~ 31 (c)**	**~ 31 (c)**
Total Petroleum Hydrocarbons			
TPH-Diesel	**120** (b)	**2.3**	**0.3**
TPH-Motor Oil	**120**	**3.5**	**0.52**

Note:
bgs = below ground surface
mg/L = milligrams per liter
TPH = Total Petroleum Hydrocarbons

Numbers in **bold** denote a detection above the laboratory reporting limit.
Samples GW-028-EL3-A and B were also analyzed for volatile organic compounds (VOCs) and polyaromatic hydrocarbons (PAHs). No VOCs or PAHs were detected above reporting limits.

(a) Sample of liquid collected from elevator caisson.
(b) Compound was found in the blank and the sample.
(c) Sample depths are approximate, as a water level indicator was not used during sampling activities. Samples were also collected prior to backfilling the Building 028 basement.

Table 4.5
B028 Freight Elevator (Elevator No. 3) - Soil Confirmation Sample Results
Total Petroleum Hydrocarbons and Polyaromatic Hydrocarbons
Hitachi GST
San Jose, California

Chemical		028-EL3-SW NORTH (mg/kg)	028-EL3-SW SOUTH (mg/kg)	028-EL3-SW WEST (mg/kg)
Sample Date		**01/31/2007**	**02/01/2007**	**01/31/2007**
Sample Depth (feet bgs)		**24**	**24**	**24**
Total Petroleum Hydrocarbons	**RG (mg/kg) (a)**			
TPH-Diesel	*5,200*	< 0.97	**7.0**	< 0.99
TPH-Motor Oil	*2,300*	< 49	< 48	< 49
Polyaromatic Hydrocarbons	**RBTC (mg/kg) (b)**			
Benzo(a)anthracene	*0.38*	< 0.005	**0.011**	< 0.005
Benzo(a)pyrene (a)	*0.038*	< 0.005	**0.015**	< 0.005
Benzo(b)fluoranthene	*0.38*	< 0.005	< 0.005	< 0.005
Benzo(g,h,i)perylene	*1,100 (c)*	< 0.005	**0.015**	< 0.005
Chrysene	*3.8*	< 0.005	**0.021**	< 0.005
Dibenz(a,h)anthracene	*0.11*	< 0.005	< 0.005	< 0.005
Indeno(1,2,3-cd)pyrene	*0.38*	< 0.005	< 0.005	< 0.005
Pyrene	*2,200*	< 0.005	**0.008**	< 0.005

Notes:
bgs = below ground surface.
mg/kg = milligrams per kilogram.
TPH = Total Petroleum Hydrocarbons
< = below the reported detection limit.

Numbers in **bold** denote a detection above the laboratory reporting limit.

(a) Remedial Goals (RGs) as presented in the Corrective Measures Study (CMS) for the Redevelopment Property (*Source: CMS Report, Redevelopment Property, Hitachi Global Storage Technologies, Inc., 5600 Cottle Road, San Jose, California. Prepared by ENVIRON, June 28, 2006: revised August 31, 2006*)

(b) Risk-Based Target Concentrations (RBTCs) were developed following the methodology outlined in the Current Conditions Report (CCR) for the Redevelopment Property (*Source: Draft CCR, Hitachi Global Technologies, Inc., Redevelopment Area and Endicott Boulevard/Tucson Way, 5600 Cottle Road, San Jose, California. Prepared by ENVIRON, July 2005).*

(c) Naphthalene was used as a surrogate for benzo(g,h,i)perylene.

Table 4.6
B028 Freight Elevator (Elevator No. 3) - Additional Grab Groundwater Results
Hitachi GST
San Jose, California

Chemical	GW-028-EL3-C (mg/L)	GW-028-EL3-D (mg/L)	GW-028-EL3-E (mg/L)	GW-028-EL3-F (mg/L)	GW-028-EL3-G (mg/L)	GW-028-EL3-H (mg/L)
Sample Date	**03/01/2007**	**03/02/2007**	**03/02/2007**	**03/02/2007**	**03/02/2007**	**03/02/2007**
Sample depth (feet bgs) (a)	**24.1**	**24.4**	**24.3**	**24.3**	**24.5**	**24.8**
Total Petroleum Hydrocarbons						
TPH-Diesel	**1.1**	**0.25**	**0.07**	< 0.05	**0.051** (b)	**0.18** (b)
TPH-Motor Oil	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Note:
bgs = below ground surface
mg/L = milligrams per liter
TPH = Total Petroleum Hydrocarbons

Numbers in **bold** denote a detection above the laboratory reporting limit.

(a) Samples were collected after the Building 028 basement had been backfilled. Final ground surface elevation might be different than ground surface when the building was in-place.

(b) According to the laboratory report, the chromatographic response does not resemble a typical fuel pattern.

Table 4.7
B028 Freight Elevator (Elevator No. 3) - Stockpile Soil Sample Results
Hitachi GST
San Jose, California

Chemical	TTLC (a) (mg/kg)	RG (b) (mg/kg)	028-EL3-STOCKPILE (mg/kg)
		Sample Date	**01/31/2007**
Polyaromatic Hydrocarbons			
Benzo(a)pyrene	---	*0.038 (c)*	0.005
Benzo(g,h,i)perylene	---	*1,100 (c,d)*	0.0067
Chrysene	---	*3.8 (c)*	0.0063
Total Petroleum Hydrocarbons			
TPH-Diesel	---	*5200*	0.021
Metals			
Arsenic	500	*12*	5.6
Barium	10,000	*5,400*	95
Chromium	2,500	*120,000*	37
Cobalt	8,000	*900*	7.2
Copper	2,500	*3,100*	21
Lead	1,000	*150*	4.5
Nickel	2,000	*1,500*	56
Vanadium	2,400	*78*	29
Zinc	5,000	*23,000*	44
pH			
pH	---	---	8.79

Notes:
Only detected constituents are shown in the table above. The stockpile samples were analyzed for pH, total petroleum hydrocarbons, metals, polyaromatic hydrocarbons, polychlorinated biphenyls, and VOCs.

--- = not available.
mg/kg = milligrams per kilogram.
TPH = Total Petroleum Hydrocarbons

(a) TTLC = Total Threshold Limit Concentration (*Source: California Code of Regulations, Title 22, Section 66261.24*)

(b) Remedial Goals (RGs) as presented in the Corrective Measures Study (CMS) for the Redevelopment Property (*Source: CMS Report, Redevelopment Property, Hitachi Global Storage Technologies, Inc., 5600 Cottle Road, San Jose, California. Prepared by ENVIRON, June 28, 2006: revised August 31, 2006*)

(c) Risk-Based Target Concentrations (RBTCs) were developed following the methodology outlined in the Current Conditions Report (CCR) for the Redevelopment Property (*Source: Draft CCR, Hitachi Global Technologies, Inc., Redevelopment Area and Endicott Boulevard/Tucson Way, 5600 Cottle Road, San Jose, California. Prepared by ENVIRON, July 2005)*

(d) Napthalene was used as a surrogate for benzo(g,h,i)perylene.

Table 4.8
B051 Elevators - Soil Results - Total Petroleum Hydrocarbons and Metals
Hitachi GST
San Jose, California

Chemical	Remedial Goal (RG) (a) (mg/kg)	SOIL-B051-EL 1,2 (mg/kg)	SOIL-B051-EL 3 (mg/kg)
	Sample Date	**04/09/2007**	**04/09/2007**
	Sample Depth (feet bgs)	**5.0**	**5.0**
Metals			
Antimony	*31*	< 2	< 1.9
Arsenic	*12*	**7**	**6.6**
Barium	*5,400*	**150**	**160**
Beryllium	*150*	**0.52**	**0.5**
Cadmium	*77*	< 0.49	< 0.49
Chromium	*120,000*	**42**	**56**
Cobalt	*900*	**11**	**12**
Copper	*3,100*	**32**	**31**
Lead	*150*	**17**	**16**
Mercury	*23*	**0.06**	**0.06**
Molybdenum	*390*	< 0.98	< 0.97
Nickel	*1,500*	**63**	**77**
Silver	*390 (b)*	< 0.98	< 0.97
Thallium	*5.2 (b)*	< 0.98	< 0.97
Vanadium	*78*	**34**	**33**
Zinc	*23,000*	**56**	**53**
Total Petroleum Hydrocarbons			
TPH-Diesel	*5,200*	**2.3**	**3.3**
TPH-Motor Oil	*2,300*	< 50	< 50

Notes:
bgs = below ground surface
mg/kg = milligrams per kilogram.
TPH = Total Petroleum Hydrocarbons
< = below the reported detection limit.

Both samples were analyzed for TPH as diesel, TPH as motor oil, and metals. Only metals that have been detected on the Redevelopment Property are included in the table.

Numbers in **bold** denote a detection above the laboratory reporting limit.
Sample SOIL-B051-EL 1,2 was also analyzed for polyaromatic hydrocarbons (PAHs). No PAHs were detected.
Sample SOIL-B051-EL 3 was also analyzed for PAHs and polychlorinated biphynyls (PCBs). No PAHs or PCBs were detected.

(a) Remedial Goals (RGs) as presented in the Corrective Measures Study (CMS) for the Redevelopment Property (*Source: CMS Report, Redevelopment Property, Hitachi Global Storage Technologies, Inc., 5600 Cottle Road, San Jose, California. Prepared by ENVIRON, June 28, 2006: revised August 31, 2006*)

(b) Risk-Based Target Concentrations (RBTCs) for residential land use. For chemicals not detected during previous Site investigations, a RBTC was developed using the exposure assumptions and methodology described in the Current Conditions Report (CCR) (*Source: Draft CCR, Hitachi Global Technologies, Inc., Redevelopment Area and Endicott Boulevard/Tucson Way, 5600 Cottle Road, San Jose, California. Prepared by ENVIRON, July 2005).*